

REMARKS

Claims 1-8 are pending. Reconsideration and allowance in view of the following remarks are respectfully requested.

Claims 1-6 are rejected under 35 U.S.C. §103(a) over U.S. Patent No. 3,815,820 to Probst in view of U.S. Patent No. 4,255,777 to Kelly et al. This rejection is respectfully traversed.

Applicants' claim 1 recites a method for atomizing a liquid medium. The method comprises supplying the liquid medium to an internal volume of a conductive nozzle body under pressure, wherein the conductive nozzle body is put on ground potential. A pulsed voltage is applied to an electrode to create an electric field between the high voltage electrode and the nozzle body so that the pulsed voltage brings about an electrostatic charging of the liquid medium in a magnitude that results in bursting of drops discharged from at least one nozzle opening.

The Probst patent discloses a hydrostatic atomizing apparatus including a body 14 having a conductive rear portion 22 and a barrel portion 23 formed of an insulating plastic. A nozzle 44 is carried by nozzle housing 37 and has an orifice 44a. Coating material under high pressure is directed to the nozzle to be atomized into fine particles through interaction with air surrounding the nozzle. An electrode is provided to establish an electrostatic field in the vicinity of the region of formation of the spray particles to impart a charge to the particles to affect their position on the article to be coated. See the Probst patent at the paragraph beginning at line 41, of column 1. The coating material is discharged from the orifice, is atomized and the atomized particles are charged in the field extending from the electrode 27 to the

metallic portions at the rear of the gun and to the articles being coated. See the Probst patent at the paragraph beginning at line 64 of column 3.

Paragraph 2 of the Office Action observes that the Probst patent discloses that the body is put on ground potential at portion 22. However, Applicants' independent claim 1 recites that the conductive nozzle body is put on ground potential. The Probst patent clearly discloses that the rear portion 22 is formed of a suitable conductive material whereas the forward or barrel portion 23 is molded of an insulating plastic material. The rear portion 22 does not correspond to a nozzle body.

Applicants independent claim 1 also recites that a pulsed voltage is applied to an electrode to create an electric field between the high voltage electrode and the nozzle body so that the pulsed voltage brings about an electrostatic charging of a liquid medium in a magnitude that results in bursting of drops discharged from at least one nozzle opening in the nozzle body. See Applicants' as filed specification at paragraph 13. Such a feature is not disclosed in the Probst patent wherein the apparatus merely imparts a charge to the particles which have already been atomized.

The Kelly patent does not overcome the deficiencies of the Probst patent discussed above. Claim 1 is therefore allowable.

The remaining dependent claims are allowable for at least the reasons discussed above as well as for the individual features they recite. For example, new claim 7 recites wherein the at least one nozzle opening is a plurality of nozzle openings and a single electrode. New claim 8 recites wherein the electrode is

arranged in the internal volume of the conductive nozzle body. Neither the Probst patent nor the Kelly patent, alone or in combination, disclose these features.

Reconsideration and withdrawal of the rejection under 35 U.S.C. §103(a) over the Probst patent in view of the Kelly patent are respectfully requested.

Early and favorable action with respect to this application is respectfully requested.

Should the Examiner believe that anything further is necessary to place the application in condition for allowance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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